

Attorney's Docket No. 5829-2 (42960/196219)



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THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Kipp *et al.* Confirmation No.: 5324  
Appl. No.: 10/029,065 Group Art Unit: 1638  
Filed: December 20, 2001 Examiner: Not yet assigned  
For: PLANT MSH2 SEQUENCES AND METHODS OF USE

Commissioner for Patents  
Washington, DC 20231

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**INFORMATION DISCLOSURE STATEMENT  
CITATION UNDER 37 C.F.R. § 1.97**

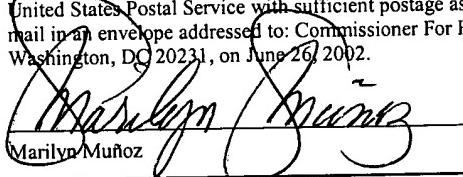
Sir:

Attached is a list of documents on form PTO-1449 together with a copy of each identified document. It is requested that the Examiner consider these documents and officially make them of record in accordance with the provisions of 37 C.F.R. § 1.97 and Section 609 of the MPEP. By submitting the listed documents, Applicant in no way makes any admission as to the prior art status of the listed documents, but is instead submitting the listed documents for the sake of full disclosure.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Leslie T. Henry".

Leslie T. Henry  
Registration No. 45,714

<b>Customer No. 00826</b> <b>ALSTON &amp; BIRD LLP</b> Bank of America Plaza 101 South Tryon Street, Suite 4000 Charlotte, NC 28280-4000 Tel Raleigh Office (919) 862-2200 Fax Raleigh Office (919) 862-2260	<b>CERTIFICATE OF MAILING</b>  I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner For Patents, Washington, DC 20231, on June 26/2002.   Marilyn Muñoz
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Substitute for form 1449A/PTO  
(Revised 10/2001)

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
*(Use as many sheets as necessary)*

Sheet 1 of 2

**Complete if Known**

Application Number	10/029,065
Filing Date	December 20, 2001
First Named Inventor	Kipp
Group Art Unit	1638
Examiner Name	Not yet assigned

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**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No.	Document Number Number - Kind Code (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages of Relevant Figures Appear

**FOREIGN PATENT DOCUMENTS**

Examiner Initials	Cite No.	Foreign Patent Document Country Code - Number Kind Code (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T

**OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T
	1	ABUIN, A., et al., "Genetic Analysis of Mouse Embryonic Stem Cells Bearing <i>Msh3</i> and <i>Msh2</i> Single and Compound Mutations," <i>Molecular and Cellular Biology</i> , January 2000, pp. 149-157, Vol. 20(1), American Society for Microbiology, USA.	
	2	ADE, J., et al., "Four Mismatch Repair Paralogues Coexist in <i>Arabidopsis thaliana</i> : <i>AtMSH2</i> , <i>AtMSH3</i> , <i>AtMSH6-1</i> and <i>AtMSH6-2</i> ," <i>Mol. Gen. Genet.</i> , 1999, pp. 239-249, Vol. 262, Springer-Verlag.	
	3	ALANI, E., et al., "Genetic and Biochemical Analysis of <i>Msh2p-Msh6p</i> : Role of ATP Hydrolysis and <i>Msh2p-Msh6p</i> Subunit Interactions in Mismatch Base Pair Recognition," <i>Molecular and Cellular Biology</i> , May 1997, pp. 2436-2447, Vol. 17(5), American Society for Microbiology, USA.	
	4	ALANI, E., et al., "Interaction Between Mismatch Repair and Genetic Recombination in <i>Saccharomyces cerevisiae</i> ," <i>Genetics</i> , May 1994, pp. 19-39, Vol. 137, Genetics Society of America, USA.	
	5	COLE-STRUSS, A., et al., "Targeted Gene Repair Directed by the Chimeric RNA/DNA Oligonucleotide in a Mammalian Cell-Free Extract," <i>Nucleic Acids Research</i> , 1999, pp. 1323-1330, Vol. 27(5), Oxford University Press.	
	6	CULLIGAN, K., and J. HAYS, "Arabidopsis MutS Homologs - <i>AtMSH2</i> , <i>AtMSH3</i> , <i>AtMSH6</i> , and a Novel <i>AtMSH7</i> - Form Three Distinct Protein Heterodimers with Different Specificities for Mismatched DNA," <i>The Plant Cell</i> , June 2000, pp. 991-1002, Vol. 12, American Society of Plant Physiologists, USA.	
	7	CULLIGAN, K., and J. HAYS, "DNA Mismatch Repair in Plants: An <i>Arabidopsis thaliana</i> Gene That Predicts a Protein Belonging to the MSH2 Subfamily of Eukaryotic MutS Homologs," <i>Plant Physiol.</i> , 1997, pp. 833-839, Vol. 115.	

Examiner Signature	Date Considered
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\*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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of

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## OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

		Complete if Known	
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T
	8	CULLIGAN, K., et al., "Evolutionary Origin, Diversification and Specialization of Eukaryotic MutS Homolog Mismatch Repair Proteins," <i>Nucleic Acids Research</i> , 2000, pp. 463-471, Vol. 28, Oxford University Press.	
	9	DROTSCHMANN, K., et al., "Mutator Phenotypes of Yeast Strains Heterozygous for Mutations in the <i>MSH2</i> Gene," <i>Proc. Natl. Acad. Sci. USA</i> , March 1999, pp. 2970-2975, Vol. 96.	
	10	HOHN, B., and H. PUCHTA, "Gene Therapy in Plants," <i>Proc. Natl. Acad. Sci. USA</i> , July 1999, pp. 8321-8323, Vol. 96.	
	11	HOLMES, J., et al., "Strand-Specific Mismatch Correction in Nuclear Extracts of Human and <i>Drosophila melanogaster</i> Cell Lines," <i>Proc. Natl. Acad. Sci. USA</i> , August 1990, pp. 5837-5841, Vol. 87.	
	12	MARSISCHKY, G., et al., "Redundancy of <i>Saccharomyces cerevisiae MSH3</i> and <i>MSH6</i> in <i>MSH2</i> -dependent Mismatch Repair," <i>Genes and Development</i> , 1996, pp. 407-420, Vol. 10(4), Cold Spring Harbor Laboratory Press, USA.	
	13	MENGISTE, T., and J. PASZKOWSKI, "Prospects for the Precise Engineering of Plant Genomes by Homologous Recombination," <i>Biol. Chem.</i> , 1999, pp. 749-758, Vol. 380, Walter de Gruyter, Berlin.	
	14	MODRICH, P., and R. LAHUE, "Mismatch Repair in Replication Fidelity, Genetic Recombination, and Cancer Biology," <i>Annu. Rev. Biochem.</i> , 1996, pp. 101-133, Vol. 65, Annual Reviews Inc.	
	15	RAYSSIGUIER, C., et al., "The Barrier to Recombination Between <i>Escherichia coli</i> and <i>Salmonella typhimurium</i> Is Disrupted in Mismatch-Repair Mutants," <i>Nature</i> , November 1989, pp. 396-401, Vol. 342(6248).	
	16	REENAN, R., and R. KOLODNER, "Characterization of Insertion Mutations in the <i>Saccharomyces cerevisiae MSH1</i> and <i>MSH2</i> Genes: Evidence for Separate Mitochondrial and Nuclear Functions," <i>Genetics</i> , December 1992, pp. 975-985, Vol. 132(4), Genetics Society of America, USA.	
	17	RICE, M., et al., "Genetic Repair of Mutations in Plant Cell-Free Extracts Directed by Specific Chimeric Oligonucleotides," <i>Plant Physiology</i> , June 2000, pp. 427-437, Vol. 123, American Society of Plant Physiologists, USA.	
	18	STUDAMIRE, B., et al., " <i>Saccharomyces cerevisiae Msh2p</i> and <i>Msh6p</i> ATPase Activities Are Both Required During Mismatch Repair," December 1998, pp. 7590-7601, Vol. 18(12), American Society for Microbiology, USA.	
	19	STUDAMIRE, B., et al., "Separation-of-Function Mutations in <i>Saccharomyces cerevisiae MSH2</i> That Confer Mismatch Repair Defects but Do Not Affect Nonhomologous-Tail Removal During Recombination," <i>Molecular and Cellular Biology</i> , November 1999, p. 7558-7567, Vol. 19(11), American Society for Microbiology, USA.	
	20	VERGUNST, A., et al., "VirB/D4-Dependent Protein Translocation from <i>Agrobacterium</i> into Plant Cells," <i>Science</i> , November 2000, pp. 979-982, Vol. 290.	
	21	WIND, N., et al., "Inactivation of the Mouse <i>Msh2</i> Gene Results in Mismatch Repair Deficiency, Methylation Tolerance, Hyperrecombination, and Predisposition to Cancer," <i>Cell</i> , July 1995, pp. 321-330, Vol. 82, Cell Press.	
	22	GenBank Report for Accession No. AF109243, Direct Submission on November 24, 1998.	
	23	GenBank Report for Accession No. AJ007791, Direct Submission on July 9, 1998.	
	24	GenBank Report for Accession No. AJ238785, Direct Submission on May 4, 1999.	
	25	GenBank Report for Accession No. AJ245967, Direct Submission on August 20, 1999.	
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